Emerging Opportunities for Smallholder Tobacco Farmers

5 December 2018
Outline

I. Understand current patterns
II. Identify diversification opportunities
III. Work toward inclusive business models
What do we know about tobacco farmers today?
The 5 percent of households engaged in tobacco farming share many challenges with other agricultural households. They also tend to be more diversified, connected, and exposed.

**Current Patterns**

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<th>Tobacco-Farming Households</th>
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**Shared Challenges**

- **Limited access to reliable markets**
  
  Few rural areas with tobacco activity have reliable access to agricultural markets.

- **Limited food security and diet diversity**
  
  Only 1 in 4 tobacco-farming households has a diverse diet, and 3 in 4 are food insecure.

**Key Differences**

- **Male decision-makers**
  
  Significantly more likely than other agricultural households to have a male household head and crop decision-maker.

- **More access to small assets and financial services**
  
  Higher mobile phone, bicycle, and bank account ownership.

- **Greater exposure to market shocks**
  
  40% affected by high input costs and 75% affected by low output prices, higher than other agricultural households.

**Note 1:** 1 km x 1 km grids show the estimated probability of tobacco being farmed in the area. Areas with a probability of tobacco farming less than 60% are shown in gray. Water bodies are shown in blue.

**Source:** Fraym
CURRENT PATTERNS || LABOR AND PRODUCTION

Tobacco households have more diversification through livestock and crop variety. Per hectare costs, sales, and profits are significantly higher than other households.

**Note 1**: Data on labor comes from a seven day recall of the number of hours worked in the past week. Statistics above do not include individuals who reported working zero hours in the past seven days. Child labor is defined as any person, aged 5-17, who reported working some amount of time in the last seven days.

**Note 2**: Data on farm sales and profits only include households that are engaged in agricultural activities and made sales. Cost data is only for households that had costs. Farm costs are defined as any cost associated with farming, and includes seeds, inputs, labor, and transportation.

**Source**: Fraym
Where are there opportunities for diversification?
Geographic viability: Groundnut, soyabean, beans, sweet potato, and sunflower are currently grown in tobacco areas.

Revenue potential: Tobacco crops bring in an average of 600,000 MWK in sales per hectare planted. This is significantly higher than any other market-facing crop.

Ease of transition: 20% of tobacco farming households are currently growing groundnut, beans, and/or soya. Of these crops, groundnut and soya have the highest per hectare sales.

Note 1: Crop categories are not mutually exclusive. A household can grow multiple crops. Several crops were removed due to small sample size, such as sugarcane, paprika, onion, and tomato. A household is considered as growing and selling a crop if they responded yes to selling at least some of their harvested crop.

Source: Fraym
Soya and groundnut appear particularly well-suited for the central tobacco-growing area.

Percent of agricultural households growing Soya and Groundnut

Percent of tobacco-farming households growing soya:
- Mchinji: 41%
- Kasungu: 12%
- Dowa: 24%

Percent of tobacco-farming households growing groundnut:
- Mchinji: 54%
- Kasungu: 33%
- Dowa: 31%
How can we work toward inclusive business models?
In Mchinji, Dowa and Kasungu districts,

- Smallholder tobacco farmers currently produce around 3,000 MT\(^1\) of soya, with an average yield of 0.6-0.8 ton/ha.

With support for agricultural transformation that helps to improve yields\(^2\) to around 2 tons/ha,

- An additional 9,000 - 12,000 MT of soya could be produced in these districts, assuming the same land use for smallholder tobacco farmers.

Farmers earn 550,000 MWK per ha of tobacco and 125,000 MWK per ha of soya in these districts.

With new seed varieties, extension services, and market facilitation to ensure a stable price, farmer earnings could reach 375,000 MWK per ha of soya. With lower per hectare costs than tobacco, this may be a competitive income opportunity.

If demonstrated viability under improved yield facilitates a transition of 50\% of smallholder tobacco land in these districts to soya,

- Around 35,000 MT of additional soya could be produced.

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Note 1: Production is estimated using population data in combination with estimations of average yield and plot size from survey data in the three districts. MT refers to metric tons.

Note 2: Improved yield potentials for Kasungu district from the Feed the Future Soyabean Innovation Lab trials.

Source: Fraym.
With improved groundnut yield, smallholder tobacco farmers in these districts could produce over 18,000 metric tons under current land use.

In Mchinji, Dowa and Kasungu districts,
- Smallholder tobacco farmers currently produce around 6,000 MT of groundnut, with an average yield of 1.2-1.4 ton/ha.

With support for agricultural transformation that helps to improve yields to around 3 tons/ha,
- An estimated 12,000 – 14,000 MT of additional groundnut could be produced in these districts, assuming land use remains the same.

After demonstrating viability, if tobacco farmers decide to use 50% of tobacco land for groundnut,
- Over 50,000 MT of additional groundnut could be produced in these districts.

*Potential assuming a 50% reallocation of tobacco land to groundnut

Source: Fraym.
To drive impact by identifying opportunities for innovative supply chains, Fraym predicted milk production across Uganda. Similar analysis of crop concentrations can provide key insight for alternative crop production in Malawi.

**Total predicted annual milk production**

- **Uganda:** 2.1 billion liters
- **Mbarara:** 208 million liters

*Note:* Does not include large commercial milk production.

**Predicted milk production (liters per day)**

- 0 – 2,000
- 2,000 – 5,000
- 5,000 – 10,000
- 10,000 – 20,000
- 20,000 – 50,000
- 50,000 +

*Note:* Each grid represents a 10x10 km² area, with non-zero predicted milk production.

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**Note:** The greater Kampala region shows a high level of milk production as the methodology to estimate milk production is a function of population.

**Source:** Fraym